

**IT IS THE VENDOR'S RESPONSIBILITY TO CHECK
FOR ADDENDUMS PRIOR TO SUBMITTING PROPOSALS**

NOTICE TO BIDDERS SPECIFICATION NO. 05-180

The City of Lincoln, Nebraska intends to purchase and invites you to submit a sealed bid for:

TRUCK MOUNTED HYDRAULIC KNUCKLE BOOM LOADER

Sealed bids will be received by the City of Lincoln, Nebraska on or before **12:00 noon Wednesday, July 27, 2005** in the office of the Purchasing Agent, Suite 200, K Street Complex, Southwest Wing, 440 South 8th Street, Lincoln, Nebraska 68508. Bids will be publicly opened and read at the K Street Complex.

Bidders should take caution if U.S. mail or mail delivery services are used for the submission of bids. Mailing should be made in sufficient time for bids to arrive in the Purchasing Division, prior to the time and date specified above. Late bids will not be considered. **Fax or e-mail bids are not acceptable. Bid response must be in a sealed envelope.**

EQUIPMENT SPECIFICATIONS
TRUCK MOUNTED HYDRAULIC KNUCKLE BOOM LOADER

1. INTENT

- 1.1 This Knuckle Boom Loader will be mounted on a new 2006 or 2007, 4x2 cab and chassis designed to meet all requirements of the Knuckle Boom Loader and the City of Lincoln including but not limited to Engine, Transmission, GAWR, GVWR, WB, CA, AF and Frame Design.
- 1.2 This bid will include providing the Cab and Chassis and Loader, mounting, testing, training and delivery of a complete Truck Mounted Hydraulic Knuckle Boom Loader, ready for operation as more clearly described in the technical specifications.
- 1.3 Complete unit must meet all Federal/State/Local and OSHA/ANSI safety standards.

2. APPLICATION

- 2.1 This Knuckle Boom Loader will be utilized by The City of Lincoln Parks Forestry Section primarily in truck loading of tree trunks and large branches but must also be capable of loading brush and miscellaneous debris.
- 2.2 This application requires a rear mount design.

3. MODEL

- 3.1 Equipment being bid shall be new and of current model of proven performance under standard production by the manufacture.
 - 3.1.1 Equipment shall be furnished complete as regularly advertised and marketed, including all specified accessories, tools, manuals and special features.
 - 3.1.2 All standard equipment shall be provided whether or not specifically mentioned in these specifications.
 - 3.1.3 The following example models are provided solely to indicate the size, type and class of equipment requested:
 - 3.1.3.1 Prentice 124 (Rear Mount)
- 3.2 Primary design considerations as follows:
 - 3.2.1 The Truck Mounted Hydraulic Knuckle Boom Loader must be specifically designed for the forestry and logging profession.
 - 3.2.2 General purpose material handling loaders and cranes are not acceptable.

4. RESPONSIBILITY OF BIDDERS

- 4.1 Responding bidders must supply the following information:
 - 4.1.1 Engineering quality 1/16" scale drawings of a completely operational, Truck Mounted Knuckle Boom Loader, to include dimensional data and weight distribution analysis.
 - 4.1.2 Complete specification, dimensions and weight of grapple, rotator and hanger being offered.
 - 4.1.3 List of recent sales of similar design Knuckle Boom Loaders, to include the

company name, address, contact, telephone number, delivery date and equipment model.

5. BID AWARD CRITERIA

- 5.1 Conformance to the Equipment Specifications concerning the size, type and class of the Knuckle Boom Loader offered, and the ability to provide specific equipment as indicated in the technical specifications.
- 5.2 The Knuckle Boom Loaders ability to satisfactorily perform in its intended application, as determined through contact with current equipment users.
- 5.3 Bidders ability to provide product support (i.e. parts, service, training and technical assistance).
- 5.4 Previous experience with both the bidder and the product being offered.
- 5.5 Best overall value to The City of Lincoln
- 5.6 Delivery schedule.
- 5.7 **Loaders offered which deviate in some areas of the technical specifications but are equal in design, performance and quality will be given consideration. The right to evaluate specification compliance and equivalency is reserved by the City.**

6. TRADE-ALLOWANCE

- 6.1 Trade-ins are offered on as-is, where is basis; and no warranties whether expressed or implied are intended regarding the condition of the equipment or fitness of the equipment for specific applications.
- 6.2 In the event the City accepts bidders trade-in allowance, the bidder is responsible for all transportation of the equipment away from the City premises.
- 6.3 Bid conditioned upon the acceptance by the City of any or all trade-in allowances will not be considered.
- 6.4 The City reserves the right to include trade-in allowance in the evaluation of bids, or not to give any consideration to trade-in allowances.
- 6.5 **Equipment List**
 - 6.5.1 City of Lincoln Equipment # 33014 - Prentice 120RM Loader, Mounted on a 1990 Ford F800.
- 6.6 **Equipment Inspection**
 - 6.6.1 Bidder will contact Jim Chiles, Phone Number 402-441-4941 to arrange inspection of the equipment offered.

7. LICENSING REQUIREMENTS

- 7.1 All bidders must comply with the licensing requirements for motor vehicle dealers established under the Motor Vehicle Industries Licensing Act, Nebraska Revised Statutes, Chapter 60, Article 14.
 - 7.1.1 **Licensing requirements must be met at the time of the bid opening for the bid to be valid.**
 - 7.1.2 **Bids not meeting this requirement will be immediately rejected.**

Meets Specs.

Yes No

8. HYDRAULIC LOADER

- ___ 8.1 Knuckle boom type, with 3' telescoping tip section.
- ___ 8.2 Truck mounted, behind rear axle.
- ___ 8.3 Full hydraulic powered, A-frame design.
- ___ 8.4 Stowed travel height 13' 2" maximum.
- ___ 8.5 Maximum overall length 26'.
- ___ 8.6 Capable of proper operation in an ambient temperature range of -10⁰ F. through 110⁰ F.

9. PERFORMANCE

- ___ 9.1 25' horizontal reach with 35' working height to boom tip.
- ___ 9.2 The following minimum capacities based on SAE Standard 87% rating and 5' elevation and less weight of attachment:
 - ___ 9.2.1 Radius 10', lift capacity 9,300 lbs.
 - ___ 9.2.2 Radius 15', lift capacity 6,200 lbs.
 - ___ 9.2.3 Radius 20', lift capacity 4,400 lbs.
 - ___ 9.2.4 Radius 25', lift capacity 1,600 lbs.
- ___ 9.3 Below grade reach 7' minimum.
- ___ 9.4 Continuous swing rotation with mechanical stops and a minimum swing torque of 14,500 ft. lbs.

10. BOOMS

- ___ 10.1 High tensile steel boom construction.
- ___ 10.2 Main boom equivalent to 10" x 6" spar tube and stick boom equivalent to 8" x 6" spar tube.
- ___ 10.3 Heat treated high alloy steel pins and aluminum bronze pivot bushings.
- ___ 10.4 Self-aligning grease-able main and stick bushings.
- ___ 10.5 Telescoping design 3' boom extension to accommodate dimensional and performance requirements.

11. STABILIZERS

- ___ 11.1 Telescopic A-frame design integral with loader.
- ___ 11.2 Width at ground level 112".
- ___ 11.3 Individual stabilizer control valves at operators station.
- ___ 11.4 Approximately 10" x 15 stabilizer pads .
- ___ 11.5 Stabilizers must be capable of 9" below grade reach for use on uneven ground.

Meets Spec.

Yes No

12. SWING SYSTEM

- ___ ___ 12.1 Continuous rotation, ring gear and pinion gear set driven by an axial piston hydraulic motor through a planetary gearbox.
- ___ ___ 12.2 Swing speed 2-5 RPM
- ___ ___ 12.3 Swing torque of 14,545 ft. lbs. minimum.
- ___ ___ 12.4 25" turntable bearing.
- ___ ___ 12.5 Swing system to be secured by house lock during transit.

13. STRUCTURAL

- ___ ___ 13.1 A-frame pedestal constructed of formed high tensile steel.
- ___ ___ 13.2 Integral pedestal and stabilizers.

14. OPERATORS STATION

- ___ ___ 14.1 Rotating operators platform to be mounted on the upper right hand side of the tower with vinyl covered fold down seat, dual armrests, seat belt and safety guard rails.
- ___ ___ 14.1.1 Right side fixed access ladder.

15. HYDRAULIC SYSTEM

- ___ ___ 15.1 Split flow tandem circuit.
- ___ ___ 15.2 Fully independent simultaneous operation of main boom, grapple and swing with flow diverted to operate stabilizers.
- ___ ___ 15.3 Control valves will be stacked sections as follows:
 - ___ ___ 15.3.1 Valves to contain port reliefs and anti-cavitation valves for loader protection and control.
 - ___ ___ 15.3.3 Individual port reliefs for swing, main and secondary boom circuits.
 - ___ ___ 15.3.4 Mechanical joystick controls to operate main boom, stick boom and grapple functions.
 - ___ ___ 15.3.5 Mechanical single lever control to operate extension function.
 - ___ ___ 15.3.5 Mechanical foot pedal control to operate swing function.
- ___ ___ 15.4 Hydraulic pump will be 21 + 19 G.P.M. tandem gear type operating at 1650 rpm maximum.
- ___ ___ 15.5 Direct mount PTO pump combination.
 - ___ ___ 15.5.1 Power shift design "Hot Shift" with activation through OEM dash mounted PTO switch.

Meets Specs.

Yes No

- ___ ___ 15.6 Forty (40) gallon hydraulic oil reservoir as follows:
- ___ ___ 15.6.1 Reservoir will installed on the left side of flatbed directly
behind bulkhead.
- ___ ___ 15.6.2 Filtered breather with sight gauge, magnetic drain plug, screened
filler neck, filter condition gauge and suction screen.
- ___ ___ 15.6.3 Spin on hydraulic filter.
- ___ ___ 15.6.4 Service shut-off valve.
- ___ ___ 15.7 Throttle control will be switch activated at operators station.
- ___ ___ 15.8 All hydraulic cylinders will be double acting, solid rod and screw on head
with approximate dimensions as follows:
- ___ ___ 15.8.1 Main boom 4.5" bore with 2.5" rod.
- ___ ___ 15.8.2 Stick boom 4.5" bore with 2.5" rod.
- ___ ___ 15.8.3 Stabilizers 3" bore with 2" rod.
- ___ ___ 15.9 Swing system to be driven by an axial piston hydraulic motor.
- ___ ___ 15.10 Heavy-duty air to oil hydraulic oil cooler.
- ___ ___ 15.11 High pressure steel tubing with 4000 psi wear resistant hoses at pivot
points with shielded protective hose wraps.
- ___ ___ 15.11.1 Steel tubing to be securely installed on the top side of booms where
possible.
- ___ ___ 15.11.2 Hoses from stick boom to extension will be shielded with
protective hose wrap.

16. GRAPPLE

- ___ ___ 16.1 Heavy duty 1/4 cord butt type grapple with rotator and hanger.
- ___ ___ 16.2 Critical areas of jaws to be reinforced and designed to protect cylinder rods.
- ___ ___ 16.3 Abrasion resistant rounded tip jaws.
- ___ ___ 16.4 Cylinders and jaw configuration will combine to provide require force to lift
and hold large logs.
- ___ ___ 16.5 Head assembly to be constructed of high tensile steel with heavy duty
bearings and hardened gears.
- ___ ___ 16.6 Friction knuckle design hanger with disc type brake to retard grapple sway.
- ___ ___ 16.7 Minimum 10,000 lb. lift capacity.
- ___ ___ 16.8 Grapple cylinders to be double acting, solid rod with screw on head.

___ ___ 16.9 Width 20".

Meets Specs.

Yes No

___ ___ 16.10 Full open inside jaw width 66"
___ ___ 16.11 Rotation will be unlimited in either direction.
___ ___ 16.12 Minimum 1,900 ft./lb. rotator torque.
___ ___ 16.13 All hydraulic hoses associated with the grapple and rotator will be shielded
with protective hose wrap.

17. FLATBED

___ ___ 17.1 Steel construction electrically welded flatbed to be full length and
approximately 96" wide.
___ ___ 17.2 6" structural channel long members welded to 4" structural steel cross
members on 16" centers.
___ ___ 17.3 3/16" tread plate floor with 4" broken or structural steel side edge.
___ ___ 17.4 Three (3) step 24" wide enclosed stair design curb side entry access.
___ ___ 17.4.1 Stairs will be constructed of tread grip ladder rungs and be
a integral part of the platform.
___ ___ 17.4.2 Staircase will be constructed of same tread plate as decking and be
located as far forward as possible on the curb side of platform.
___ ___ 17.4.3 First step to be approximately 16 inches off the ground with even
split step heights to platform.
___ ___ 17.4.4 Front and top, low profile entry access handles will be fabricated
from 3/4" cold finished round and installed on right and left side of
staircase.

18. BULKHEAD

___ ___ 18.1 Full height, full width heavy-duty integral bulkhead.
___ ___ 18.2 Bulkhead construction to be 3"x 3" - 1/4" wall square tube frame and
supports covered with 3/4" - 13 - 15 flattened expanded metal.

19. GRAPPLE STOW BUMPER AND FRAME CUTOFF

___ ___ 19.1 Grapple storage will be front hung design directly in front of stationary grill.
___ ___ 19.2 Custom design grapple cradle, grill guard and bumper will be designed
specifically for chassis provided and allow tilt forward hood to fully open

when the grapple is out of the cradle.

- ___ ___ 19.3 Grapple will be closed on the cradle structure to secure during transport.
- ___ ___ 19.4 Bumper will be constructed of 10" structural channel.
- ___ ___ 19.5 Grill guard and grapple cradle will be constructed of 6" x 6" - 1/4" wall square tube.
- ___ ___ 19.6 Rear frame cutoff to be capped with 1/2" steel plate.

Meets Spec.
Yes No

20. HYDRAULIC WINCH

- ___ ___ 20.1 One (1) Ramsey Model H-800 hydraulic industrial winch.
- ___ ___ 20.2 Hydraulic power to winch will be provided by the loader hydraulic system.
- ___ ___ 20.3 Winch to be securely mounted behind the loader with reinforcement as required.
- ___ ___ 20.4 20,000 lb. line pull first wrap.
- ___ ___ 20.5 Free spool clutch.
- ___ ___ 20.6 Oil-cooled worm brake.
- ___ ___ 20.7 Roller type fairlead.
- ___ ___ 20.8 150 ft. 1/2" high quality fiber core cable with sling eye hook.
- ___ ___ 20.9 Holland #DB-060FQ1 rigid mount bolt-on drawbar will be installed on the rear frame cap to act as stow device for the winch cable.
- ___ ___ 20.10 Winch control valve will be installed on curb side rear of platform within easy reach of the operator from ground level.

21. UNDERBODY TOOL BOXES

- ___ ___ 21.1 Curb side underbody box will be 48"L. x 24"D. x 30"H.
- ___ ___ 21.2 Street side underbody box will be 60"L. x 24"D. x 30"H.
- ___ ___ 21.3 .125 mil polished diamond tread aluminum construction.
- ___ ___ 21.4 Four sided weather shielded door frame.
- ___ ___ 21.5 Gusseted bottom corners.
- ___ ___ 21.6 Automotive style door gasket.
- ___ ___ 21.7 Offset continuous stainless steel door hinge and stainless steel hardware.
- ___ ___ 21.8 Single drop down door with adjustable chain door stays.
 - ___ ___ 21.8.1 Doors to be reinforced with full liner to act as work area.
- ___ ___ 21.9 Stainless steel folding T-handle latches.

- ___ ___ 21.10 Key locking with all locks keyed alike.
 ___ ___ 21.11 Two (2) 250 lb. capacity adjustable shelves in 48" box.
 ___ ___ 21.12 Boxes will be "RC Industries M-Series Custom" or equal.
 21.12.1 RC Industries Phone # 800-382-9511

Meets Specs.
Yes No

22. LIGHTING AND ELECTRICAL SYSTEM

- ___ ___ 22.1 Lighting must meet F.M.V.S. S. 108
 ___ ___ 22.2 All clearance, side marker and rear identification markers required to meet
 108 Standards to be shock resistant LED.
 ___ ___ 22.3 Existing stop/tail/turn and backup lights shall be repositioned with
 installation including heavy-duty steel light guards.
 ___ ___ 22.4 Wiring harness for all 108 lighting to be one piece design
 with sealed connectors securely attached to the body.
 ___ ___ 22.4.1 Splices will be limited as much as possible but if required will be
 solder heat shrink connectors.
 ___ ___ 22.4.2 Wiring will be loomed and securely attached using insulated
 stainless steel cable/wire clamps and stainless steel hardware.
 ___ ___ 22.4.2.1 The use of adhesive or frame clip type wire/clamps is not
 acceptable.
 ___ ___ 22.5 Whelen "Towman's Edge Super-LED" 60" light bar with the following:
 ___ ___ 22.5.1 Four (4) corner Linear Super-LED lamps (amber).
 ___ ___ 22.5.2 Four (4) front Linear Super-LED lamps (amber).
 ___ ___ 22.5.3 Two (2) front Halogen work lights.
 ___ ___ 22.5.4 Two (2) rear Halogen work lights.
 ___ ___ 22.5.5 One (1) right side Halogen alley light.
 ___ ___ 22.5.6 One (1) left side Halogen alley light.
 ___ ___ 22.5.7 Integral rear-facing Linear Super-LED six lamp Traffic Advisor,
 capable of producing a minimum of four (4) sequential flash
 patterns: "*Left*" Arrow, "*Right*" Arrow, "*Split*" Arrow; and a
 "*Cautionary*" Flash Pattern (amber).
 ___ ___ 22.5.8 Light bar will be installed on a fabricated mount bracket, off the
 front of the bulkhead.

- ___ ___ 22.6 Traffic advisor will be controlled through a under dash mounted Whelen
"TACTRL1A" control head.
- ___ ___ 22.7 One (1) Whelen Power Control Center (#PCCHD1) under dash mounted,
with switches labeled and wired as follows: (left to right).
- ___ ___ 22.6.1 Front strobes.
- ___ ___ 22.6.2 Rear strobes.
- ___ ___ 22.6.3 Front work lights.
- ___ ___ 22.6.4 Rear work lights.
- ___ ___ 22.6.5 Right alley light.
- ___ ___ 22.6.6 Left alley light
- ___ ___ 22.8 Golight Model 2020 with #49420 flood lamp, permanent mount work light
with dash mounted remote control, installed in front center area of cab roof.

Meets Specs.

Yes No

23. MISCELLANEOUS EQUIPMENT

- ___ ___ 23.1 Dash mounted stabilizer warning light to notify operator of stabilizer creep
during transport.
- ___ ___ 23.2 Stabilizer warning alarm to sound when stabilizers are being lowered.
- ___ ___ 23.3 Rear mud flaps..
- ___ ___ 23.4 Reflective tape on broken edge of platform and on rear of the unit in a
chevron pattern.
- ___ ___ 23.5 Any special tools required to complete routine service and inspection.

24. PAINTING

- ___ ___ 24.1 Finish coat of loader to be manufactures standard color with platform,
grapple stow, bumper and associated equipment to be black.
- ___ ___ 24.2 Metal will be completely primed with a rust inhibitive primer/sealer that is
recommended by and compatible with the finish coat manufacture.
- ___ ___ 24.3 Primer/sealer will be applied in accordance with the Product Data Sheet.
- ___ ___ 24.4 Finish coat to be Sherwin Williams SUNFIRE acrylic urethane or equal.
- ___ ___ 24.5 Finish coat will be applied in accordance with the Product Data Sheet.
- ___ ___ 24.5.1 Finish must be smooth, shiny, free of runs, overspray and other
defects.
- ___ ___ 24.5.2 Entire system will have a minimum of 4.0 mil dry film thickness.
- ___ ___ 24.6 Bidder must provide Product Data Sheets for proposed coating products
with the bid proposal.

25. MANUALS

- ___ ___ 25.1 Two (2) service manuals.
- ___ ___ 25.2 Two (2) parts manuals.

___ ___ 25.3 Two (2) operators manuals.

26. WARRANTY

___ ___ 26.1 The manufactures standard warranty shall apply, with a minimum term required by the City of Lincoln of 12 months from date of acceptance.

___ ___ 26.2 Please include all warranty details and information with the bid proposal.

___ ___ 26.3 During the warranty period, it shall be the responsibility of the seller to perform warranty repairs F.O.B. Lincoln, NE. or at the sellers discretion, to transport the equipment to the seller's repair facility for such repairs. All transportation costs associated with such warranty repairs will be paid by the seller.

Meets Specs.

Yes No

27. DELIVERY AND TRAINING

___ ___ 27.1 The successful bidder shall be responsible for the delivery of the Truck Mounted Loader complete and ready for operation to include all manuals and accessory equipment as specified to the Fleet Services Garage, 901 North 6th Street, Lincoln, NE. on a prearranged date and time.

___ ___ 27.2 The successful bidder shall provide a minimum of 8 hours of operation and maintenance training at a date and time to be determined by The City of Lincoln.

EQUIPMENT SPECIFICATIONS
33,000 GVWR CAB AND CHASSIS

1. MODEL

- 1.1 The equipment furnished under these specifications shall be new 2006 or 2007 of the latest improved model in current production as offered to the commercial trade.
- 1.2 Example Model:
 - 1.2.1 Sterling L Series
 - 1.2.2 International 7000 or 4000 Series
 - 1.2.3 Freightliner M2-106V Series
- 1.3 Examples listed are intended to show the type and class of equipment desired.

2. COMPLIANCE

Vehicle shall comply with all current provisions of National Traffic and Motor Vehicle Safety Act.

Meet Specs.

Yes No

- — **3. GVWR**
 3.1 33,000 lbs. minimum.

- — **4. WHEEL BASE AND CAB TO AXLE**
 4.1 To meet Loader requirements as specified.

5. ENGINE

- | | | |
|-----|-------|---|
| — — | 5.1 | Engine shall be one of the following diesel engines: |
| — — | 5.1.1 | International DT-466 |
| — — | 5.1.2 | Caterpillar C7 |
| — — | 5.2 | Minimum 210 gross horse power and 520 lb. ft. torque. |
| — — | 5.3 | Minimum 7.0 liter. |

6. ENGINE EQUIPMENT

- | | | |
|-----|-------|--|
| — — | 6.1 | Heavy-duty 11 inch single element air cleaner. |
| — — | 6.2 | Air cleaner mounted air filter restriction indicator. |
| — — | 6.3 | Manufacturer's recommended High Capacity cross flow extra cooling design radiator with surge tank. |
| — — | 6.4 | Peak "Final Charge" coolant with inhibitor, engine coolant to -35F. |
| — — | 6.4.1 | No exception on brand or type of coolant requested. |
| — — | 6.5 | Silicone or Gates Blue Stripe hose package to include radiator, heater and by-pass hoses. |

Meets Specs.

Yes No

- | | | |
|-----|------|---|
| — — | 6.6 | Spin on coolant filter (If recommended by engine manufacturer) |
| — — | 6.7 | Horton drive-master on/off fan . |
| — — | 6.8 | Minimum 1000 watt 115/120 volt block heater with receptacle mounted under left-hand door. |
| — — | 6.9 | DAVCO or Fleetguard 382F remote mounted fuel/water separator with thermostatically controlled return fuel heater. |
| — — | 6.10 | Thermal electric intake heater. |
| — — | 6.11 | Fuel system primer pump. |
| — — | 6.12 | Minimum 25 qt. engine oil change capacity. |
| — — | 6.13 | Spin on oil filter. |
| — — | 6.14 | Magnetic engine oil drain plug. |
| — — | 6.15 | Heavy duty starter motor with thermal over-crank protection. |
| — — | 6.16 | Key operated electric shut down. |
| — — | 6.17 | Electronic engine system diagnostics with cab mounted J1939 diagnostic port. |
| — — | 6.18 | Engine shall be capable of electronic interface with Allison RDS series transmissions. |
| — — | 6.19 | Electronic cruise control. |
| — — | 6.20 | Remote engine speed (throttle) control for Loader Operation. |

7. EXHAUST SYSTEM

___ 7.1 Horizontal muffler with horizontal exhaust.

8. FUEL TANK

___ 8.1 Single 50 gallon fuel tank.

___ 8.2 Tank to be under cab mounted not extending beyond back of cab.

9. TRANSMISSION

___ 9.1 Allison 2500 RDS wide ratio, 5-speed with PTO gear and less retarder.

___ 9.2 Column or dash mounted shift control.

___ 9.3 Manufacturers recommended transmission cooler.

___ 9.4 Optimum transmission programming for this application.

___ 9.5 Dash mounted OEM, PTO activation switch.

10. FRONT AXLE

___ 10.1 I-Beam type 12,000 lb., front axle - (Meritor MFS-12-143A or equal).

___ 10.2 Single steering gear.

___ 10.3 Stemco High Performance "Guardian" unitized wet seal or equal design.

Meets Specs.

Yes No

11. FRONT SUSPENSION

___ 11.1 Minimum 12,000 lb. capacity leaf springs.

___ 11.2 Heavy duty shock absorbers.

12. REAR AXLE

___ 12.1 Single speed, single reduction 21,000 lb. rear axle (Meritor RS-21-160 or equal) with magnetic drain plug.

___ 12.2 Driver actuated locking differential (no-spin is not acceptable).

___ 12.2.1 Differential shall automatically unlock at 25 MPH.

___ 12.3 Axle ratio shall be determined at the time order is places.

___ 12.4 Meritor 16T drive line with 1/2 round u-joints.

13. REAR SUSPENSION

___ 13.1 Minimum 21,000 lb. main leaf springs.

___ 13.2 Minimum 4,500 lb. auxiliary leaf springs.

14. FRAME

- ___ 14.1 120,000 minimum PSI yield strength, single channel straight frame.
- ___ 14.2 20" integral front frame extension.
 - ___ 14.2.1 Front engine PTO modification is **NOT** required.
- ___ 14.3 Minimum 2,500,000 in lbs. R.B.M.
- ___ 14.4 Huck-bolt frame member fasteners.

15. WHEELS

- ___ 15.1 Minimum 7,000 lb. hub piloted, 8.25X22.5, 10 hole ventilated disc, steel wheels.
- ___ 15.2 Wheel to be powder coated, white or grey in color.

16. TIRES

- ___ 16.1 11R22.5 G highway tread front tires, Goodyear G159 or equal.
- ___ 16.2 11R22.5 G traction tread rear tires, Goodyear G167A or equal.
- ___ 16.3 One spare front wheel and tire, same brand and model as furnished on truck.
- ___ 16.4 Tires to be Firestone, Goodyear, Michelin, B.F. Goodrich, Bridgestone, UniRoyal, or General and shall carry the company name.

Meets Specs.

Yes No

17. SERVICE BRAKES

- ___ 17.1 Dual air system for straight truck application.
- ___ 17.2 Minimum 13.0 CFM air compressor, Bendix Tu-Flow 550 or equal.
- ___ 17.3 16.5" x 5.0" S-cam air front brakes with 20 sq. in. long stroke brake chambers.
- ___ 17.4 16.5" x 7" S-cam air rear brakes with 30 sq. in. long stroke brake chambers and heavy duty spring actuated parking brake.
- ___ 17.5 Full vehicle wheel ABS control system.
- ___ 17.6 Bendix AD-IP air dryer with heater.
- ___ 17.7 Air tanks with heated auto drain valve on wet tank and manual drains with pull cables on others.
- ___ 17.8 Front and rear brake dust shields.
- ___ 17.9 Front and rear automatic slack adjusters with stainless steel pins.
- ___ 17.10 Color coded nylon brake lines.
- ___ 17.11 Color coded yellow, park brake knob on instrument panel.

18. ELECTRICAL SYSTEM

- | | | |
|-------|------|--|
| __ __ | 18.1 | 12 Volt |
| __ __ | 18.2 | Minimum two (2) each heavy duty 12 volt maintenance free batteries with a total 1850 CCA capacity. |
| __ __ | 18.3 | Under cab mounted battery box. |
| __ __ | 18.4 | Remote jump start terminals. |
| __ __ | 18.5 | Delco 22-SI 130 amp capacity alternator. |
| __ __ | 18.6 | Circuit breaker protection. |
| __ __ | 18.7 | Color coded and protected wiring system. |

19. CAB

- | | | |
|-------|------|---|
| __ __ | 19.1 | Fully enclosed safety-type conventional cab with medium trim package and rear cab air suspension. |
| __ __ | 19.2 | Minimum 98 inches from grade to top of cab. |
| __ __ | 19.3 | Cab to have a minimum of 70 inches of shoulder room per specification sheet. |
| __ __ | 19.4 | Cab to have a minimum of 56 inches floor to headliner height. |
| __ __ | | 19.4.1 Raised or bubble roof is not acceptable. |
| __ __ | 19.5 | Tilt forward fiberglass hood with stationary grill. |
| __ __ | 19.6 | Hood access panel(s) to allow access to engine compartment without tilting hood. |

Meets Specs.

Yes No

20. CAB EQUIPMENT

- | | | |
|-------|-------|---|
| __ __ | 20.1 | High back vinyl covered air suspension drivers seat. |
| __ __ | | 20.1.1 "National 2000 Series" or "Bostrom 915 w/air lumbar support and dual arm rests" the lightest standard color available. |
| __ __ | 20.2 | Vinyl covered two person fixed passenger seat. |
| __ __ | 20.3 | 3-point lap and shoulder belts. |
| __ __ | 20.4 | Dual entry grab handles. |
| __ __ | 20.5 | Dual door mounted armrests. |
| __ __ | 20.6 | Dual sun visors. |
| __ __ | 20.7 | Headliner and insulated rubber floor mat. |
| __ __ | 20.8 | Storage pocket in drivers door or overhead console. |
| __ __ | 20.9 | AM-FM radio with weather band and two speakers. |
| __ __ | 20.10 | Highest available output heater/defroster with replaceable fresh air filter. |
| __ __ | 20.11 | Factory air conditioning. |
| __ __ | 20.12 | Tinted safety glass on all windows. |

- ___ 20.13 Deluxe insulation package.
- ___ 20.14 Manual operation side windows with functional vent windows.
- ___ 20.15 Sliding rear glass if available from the manufacturer.
- ___ 20.16 Tilt steering wheel.

21. CONTROLS AND INSTRUMENTS

- ___ 21.1 Key locking starter switch.
- ___ 21.2 Head, park and dome light switch.
- ___ 21.3 High beam indicator.
- ___ 21.4 Differential lock indicator.
- ___ 21.5 Self canceling turn signal switch with integral dimmer switch.
- ___ 21.6 Gauge cluster to be English with electronic speedometer.
 - ___ 21.6.1 Odometer to display miles, trip miles, engine hours and trip hours.
(engine hours to be non-resettable)
- ___ 21.7 Visual and audible warning system as follows:
 - ___ 21.7.1 Low engine oil pressure.
 - ___ 21.7.2 High engine coolant temperature.
 - ___ 21.7.3 High transmission temperature.
- ___ 21.8 Gauge cluster as follows:
 - ___ 21.8.1 Engine oil pressure.
 - ___ 21.8.2 Engine coolant temperature.
 - ___ 21.8.3 Transmission temperature.
 - ___ 21.8.4 Fuel level.
 - ___ 21.8.5 Voltmeter.
 - ___ 21.8.6 Tachometer.
 - ___ 21.8.7 Air pressures, air 1 and air 2.

Meets Specs.

Yes No

22. WINDSHIELD WIPERS

- ___ 22.1 Two speed electric windshield wipers with intermittent feature and electric washers.
 - ___ 22.1.1 Wiper blades to be Arctic Winter type.
 - ___ 22.1.2 Washer nozzles will be located on the wiper arms.

23. MIRRORS

- ___ 23.1 Door mounted, stainless steel or power coated west coast mirrors with right and left side auxiliary convex mirrors.

24. LIGHTS

- ___ 24.1 Vehicle shall be equipped with all required and manufactures recommended light to comply with FMVSS 108 and ICC requirements.
- ___ 24.2 Halogen sealed beam headlights.
- ___ 24.3 LED stop/tail/turn, clearance and marker lights.
- ___ 24.4 Hazard flashers.
- ___ 24.5 Solid state 16 lamp flasher.
- ___ 24.6 Door activated interior dome light.

25. MISCELLANEOUS EQUIPMENT

- ___ 25.1 **Delete front bumper.**
- ___ 25.2 Manufactures standard air horn(s).
- ___ 25.3 Manufactures standard electric horn.
- ___ 25.4 Electronic backup alarm.(Preco factory model)
- ___ 25.5 Two front tow hooks and two rear tow hooks. (Frame mounted)
- ___ 25.6 Front mud flaps.
- ___ 25.7 Removable winter front will be provided, if available through the manufacture.

26. PAINT

- ___ 26.1 Basecoat/Clearcoat Polyurethane enamel paint.
- ___ 26.2 Color shall be manufacturers standard white.
- ___ 26.3 Interior shall be the lightest standard color available.

27. TRUCK CAB AND CHASSIS WARRANTY

- ___ 27.1 The manufactures standard warranty shall apply.
- ___ 27.2 Please include all warranty details and information with your bid proposal.

Company Name _____

TRUCK MOUNTED HYDRAULIC KNUCKLE BOOM LOADER

CITY OF LINCOLN
BIDDING SCHEDULE

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>TOTAL</u>
--------------------	---------------------------	------------------------	--------------------	---------------------

- | | | <u>PRICE</u> |
|-----|--|---------------------|
| 1. | Truck Mounted Hydraulic
Knuckle Boom Loader One (1)
Boom Loader | \$_____ \$_____ |
| 1.1 | Loader Mfg. _____ | |
| 1.2 | Loader Model # _____ | |
| 1.3 | Truck Cab/Chassis Year _____ | |
| 1.4 | Truck Cab/Chassis Mfg. _____ | |
| 1.5 | Truck Cab/Chassis Model# _____ | |
| 1.6 | Grapple/Rotator Mfg. _____ | |
| 1.7 | Grapple/Rotator Model# _____ | |
| 2. | Trade-in Allowance as Described in
Section #6 of the Specifications. | (Optional) \$_____ |
| 3. | <u>TOTAL LESS TRADE-IN ALLOWANCE</u> | \$_____ |
| 4. | Estimated delivery days: _____ | |

No Bid Security Required

ADDENDA RECEIPT: The receipt of addenda to the specifications numbers ____ through ____ are hereby acknowledged. Failure of any bidder to receive any addendum or interpretation of the specifications shall not relieve the bidder from obligations specified in the bid request. all addenda shall become part of the final contract document.

AFFIRMATIVE ACTION PROGRAM: Successful bidder will be required to comply with the provisions of the City's Affirmative Action Policy (Contract Compliance, Sec. 1.16). The Equal Opportunity Officer will determine compliance or non-compliance with the City's policy upon a complete and substantial review of successful bidder's equal opportunity policies, procedures and practices.

The undersigned signatory for the bidder represents and warrants that he has full and complete authority to submit this proposal to the City, and to enter into a contract if this proposal is accepted.

**RETURN 2 COMPLETE COPIES OF PROPOSAL AND SUPPORTING MATERIAL.
MARK OUTSIDE OF BID ENVELOPE: SEALED BID FOR SPEC.05-180**

COMPANY NAME

BY (Signature)

STREET ADDRESS or P.O. BOX

(Print Name)

CITY, STATE ZIP CODE

(Title)

TELEPHONE

(Date)

EMPLOYER'S FEDERAL I.D. NO.
OR SOCIAL SECURITY NUMBER

ESTIMATED DELIVERY DAYS

TERMS OF PAYMENT

Bids may be inspected in the Purchasing Division offices during normal business hours, **after** tabulation by the purchasing agent. If you desire a copy of the bid tabulation to be mailed to you, you must enclose a self-addressed stamped envelope with your bidding documents. Bid tabulations can also be viewed on our website at: lincoln.ne.gov Keyword: bid